# **My Treatment: Anemia**

Anemia is a common problem for people with chronic kidney disease. There are several ways anemia occurs but the typical cause of "anemia of chronic renal insufficiency" is because of a decreased production of red blood cells by the bone marrow. Red blood cells carry oxygen from your lungs to all parts of your body, helping to give you the energy you need for your daily activities. Fortunately, there is treatment available to help.

### What Are Some Causes of Anemia?

- Several different diseases including kidney disease
- Blood loss

- Poor diet low in iron, vitamin B12 or folic acid
- Infection

# Do I have Signs and Symptoms of Anemia?

You may experience the following:

- Look pale
- Feel tired and weak
- Have trouble concentrating
- Have little energy for your daily activities
- Have a poor appetite
- Have trouble sleeping

- Have trouble thinking clearly
- Feel dizzy or have headaches
- Have a rapid heartbeat
- Feel short of breath
- Feel depressed or "down in the dumps"

## How Is Anemia Treated?

Before starting anemia treatment, your doctor will order tests to find the exact cause of your anemia. If kidney disease is the cause of your anemia, you do not have enough epogen (EPO), a hormone made by your kidneys. EPO tells your body to make red blood cells.

Your doctor will perform tests to show how much iron you have available and in storage. Your body requires iron to make new red blood cells.

#### The tests are:

- Transferrin Saturation (TSAT) which is iron circulating and should be > 20%.
- Ferritin which is stored iron and should be > 200mg/ml.
- Hemoglobin level measures red blood cells and should be between 10-12 gm/dl if on ESA (erythropoietin-stimulating agent).
- Hematocrit the percentage of whole blood made up of red blood cells and should be between 30-36% if on ESA.

Treatment with an erythropoietin-stimulating agent (ESA) can help when your kidneys no longer make enough EPO. An iron supplement may also be given orally or intravenously during dialysis treatment. Vitamins may be needed due to restrictive diet and removal of some vitamins during dialysis treatment.

#### What Is the Goal of Anemia Treatment?

Your hemoglobin level is used to decide if you need treatment for anemia or not. The goal is to keep hemoglobin between 10-12 gm/dl. When your hemoglobin is in the normal range, you should notice that you have more energy and feel less tired. Let your doctor and care team know if you do not feel well.

# My Questions

#### Ask your Care Team:

- What can I do to treat anemia?
- Is there anything I can do to reduce the chance of anemia?
- Are there other signs and symptoms that I need to look for?



www.kidney.org/professionals/KDOQI/guidelines\_anemia/index.htm http://kidney.niddk.nih.gov/KUDiseases/pubs/anemia/index.aspx



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